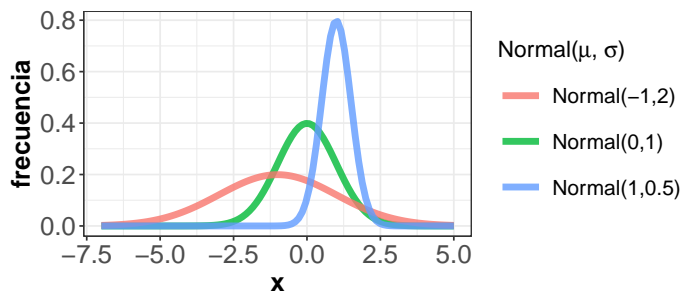


Distribuciones continuas

Distribución Normal o Gaussiana

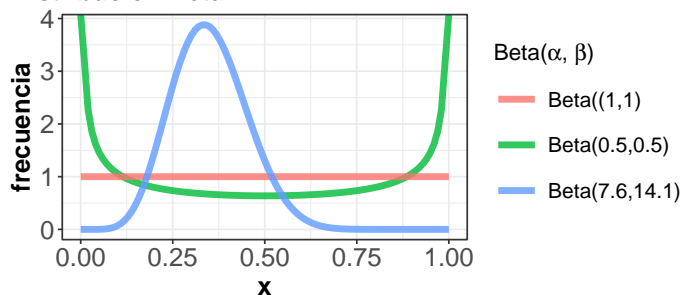


$X \sim \text{Normal}(\mu, \sigma)$
 $X \sim \text{Normal}(\mu, \tau)$
 $\tau = 1/\sigma$

Dominio:
 $X \in (-\infty, \infty)$
 $\mu \in (-\infty, \infty)$
 $\sigma > 0$ (reales)

R/NIMBLE:
`dnorm(mean, sd)`

Distribución Beta

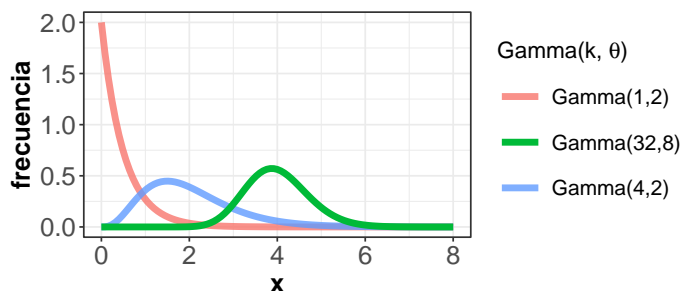


$X \sim \text{Beta}(\alpha, \beta)$
 $X \sim \text{Beta}(\mu, \sigma)$
 $\mu = \alpha / (\alpha + \beta)$
 $\sigma = \sqrt{\frac{\alpha\beta}{(\alpha + \beta)^2(\alpha + \beta + 1)}}$

Dominio:
 $X \in [0, 1]$
 $\alpha > 0$ (real)
 $\beta > 0$ (real)

R/NIMBLE:
`dbeta(alpha, beta)`

Distribución Gamma

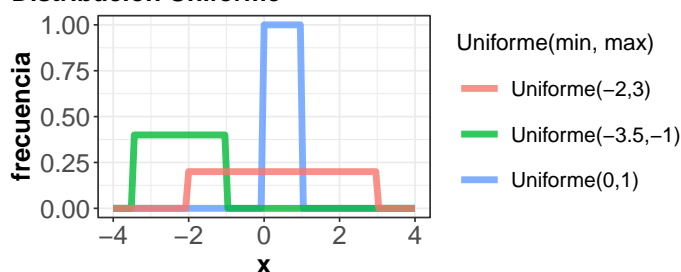


$X \sim \text{Gamma}(\alpha, \beta)$
 $X \sim \text{Gamma}(\mu, \sigma)$
 $\mu = \alpha/\beta$
 $\sigma = \alpha/\beta^2$

Dominio:
 $X \in (0, \infty)$
 $\alpha > 0$ (real)
 $\beta > 0$ (real)

R/NIMBLE:
`dgamma(shape, rate)`

Distribución Uniforme

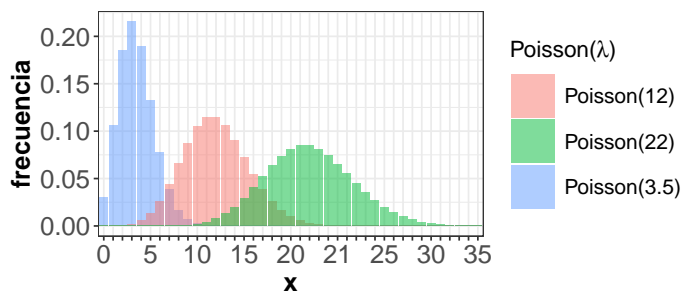


Dominio:
 $X = (-\infty, \infty)$
 $\min \in (-\infty, \infty)$ (real)
 $\max \in (-\infty, \infty)$ (real)

R/NIMBLE:
`dunif(min, max)`

Distribuciones discretas

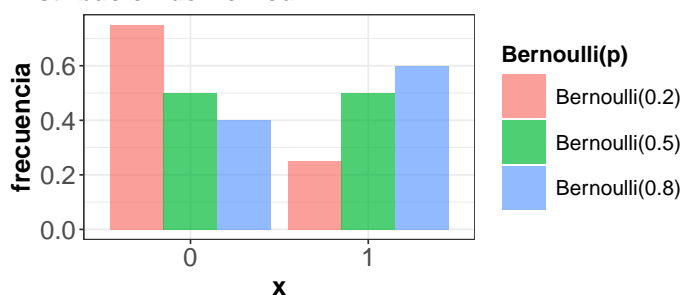
Distribución de Poisson



$X \sim \text{Poisson}(\lambda)$
 $X \in (0, \infty)$ (naturales)
 $\lambda \in (0, \infty)$ (reales)

R/NIMBLE:
`dpois(lambda)`

Distribución de Bernoulli

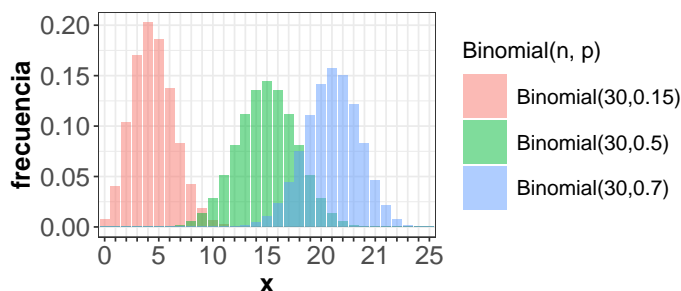


$X \sim \text{Bernoulli}(p)$

Dominio:
 $X \in \{0, 1\}$
 $p \in [0, 1]$

R/NIMBLE:
`dbinom(1, prob)`
`dbern(prob)`

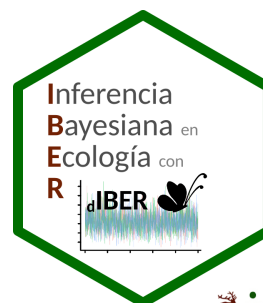
Distribución Binomial



$X \sim \text{Binomial}(n, p)$

Dominio:
 $X \in \{0, n\}$
 $n \in [0, \infty)$ (natural)
 $p \in [0, 1]$

R/NIMBLE:
`dbinom(size, prob)`
`dbern(prob, size)`



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